FOLLOW-UP ANALYSIS
OF
THE FINAL EIR
ON
PROPOSED BERRYESSA CREEK
FLOOD CONTROL PROJECT
(Lower Penitencia Creek Confluence
to Calabazas Boulevard)

by

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Project Development Branch

Under the Direction of

Dr. Bernard H. Goldner
Environmental Specialist
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August 1978

Santa Clara Valley Water District

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FOLLOW-UP ENVIRONMENTAL IMPACT EVALUATION OF THE PROPOSED BERRYESSA CREEK FLOOD CONTROL PROJECT EIR

A. Introduction

1. Purpose of This Evaluation

This study was made to evaluate the effectiveness of the mitigation measures and accuracy of the impact predictions discussed in the Final Environmental Impact Report on the "Proposed Berryessa Creek Flood Control Project (Lower Penitencia Creek Confluence to Calaveras Boulevard), July 1975".

2. Brief Description of the Project Being Assessed

This project consisted largely of expanding the existing channel from its previous width (from outside of levee to outside of levee) of approximately 100 feet to a maximum of 200 feet and deeping it from its previous depth (from bottom of channel to top of levee) of approximately 11 feet to a maximum of 15 feet. The levees containing the channel varied from approximately 3 feet to 13 feet above the surrounding ground level.

From Lower Penitencia Creek, the modified channel follows the previous alignment of Berryessa Creek for approximately 1400 feet. A new channel was excavated in a southwesterly direction to approximately the confluence of Tularcitos and Berryessa Creeks. From there, the modified channel will again follow the previous alignment of the creek to the end of the project at Calaveras Boulevard. The section of the creek bypassed by the newly excavated channel was to be filled in.

B. Summary and Discussion of the Impacts

1. Table Summarizing Predicted and Actual Impacts

The following table summarizes the short and long-term impacts predicted in the Final EIR and compares them to the actual impacts of the project:

Predicted in EIR	Actual Impacts
Short-Term	
1. Short-term erosion and sedimentation will likely occur because of the project.	1. Some erosion and minor undercutting has occurred in a few areas.
2. Channel excavation could cause locally unstable slope conditions, depending on soil conditions, slope inclination and groundwater table location.	2. Some minor slope failures have been observed in several locations.
3. Settlement may occur because of the surcharged load of the levees up to 9 feet above the existing ground level.	3. Some levee settlement did occur; however, it was within normally expected limits for this type of construction.
4. Particulate emissions may exceed the 24-hour standard to about a mile downwind of construction activities.	4. 24-hour particulate emissions standards may have been exceeded; no monitoring was done.
5. Unacceptably high noise levels may occur up to 800 feet from either side of the construction right of way.	5. High noise levels may or may not have occurred; no measurements were taken.

Short-Term (continued)

6. The project will remove about 30 acres of habitat from the creek channel.	6. This habitat was temporarily destroyed during channel excavation.
7. Project construction will displace or kill all wildlife in the constructed areas.	7. We assume that destroyed habitat either displaced or killed wildlife in excavated areas; no field data were collected.
8. Additional traffic on streets adjacent to the project will be generated by construction crews and supervisory personnel during the course of construction.	8. Very little traffic disruption occurred because the new Abel Street overcrossing opened during construction, thus relieving potential additional traffic.
9. The project construction will generate approximately $2,201,000 worth of materials and labor costs; this will provide work for local contractors and construction materials companies. The project cost will be shared by the City of Milpitas (whose share is $302,000) private developers ($485,000) and the District ($1,414,000).	9. The District's share of actual completed project cost was $1,248,019.47.

Short-Term (continued)

10. The completed project will be landscaped.	10. This has not yet occurred.

Long-Term

1. The project will remove approximately 1,000 acres from the 1% flood hazard.	1. We assume the 1% floodplain is now protected, however, no floods of that magnitude have occurred confirming this assumption.
2. Earthquake-induced levee failure may occur within the project area.	2. No significant earthquakes have yet occurred since project completion.
3. Urban development within the new 1% flood-protected area may proceed with its attendant air quality deterioration.	3. Some development has already occurred. No air quality measurements have been taken.
4. New urban development in the floodplain will increase ambient noise levels.	4. New developments have not been monitored for increased noise levels.
5. New urban development will result in loss of open space and deteriorated aesthetic values for the floodplain area.	5. This is inevitable as urbanization proceeds as planned.
6. The long-term effects of this project will be the last potential for a mature	6. It is too short an interval since project completion to assess the accuracy of this

Long-Term (continued)

riparian habitat, characteristic of Santa Clara County. The proposed maintenance levels will preclude significant regrowth; however, the grassland, weeds, and water-loving plants will provide some habitat.	prediction; however, annual and perennial herbs and grasses have already returned to the channel and levees, although in reduced species diversity.
7. Periodic channel maintenance will occasionally remove wildlife habitat, thus periodically reducing or eliminating dependent wildlife species. Urbanization of adjacent land may create additional adverse pressures on the more secretive animals using the channel.	7. Sufficient regrowth in the channel has not yet occurred requiring maintenance.
8. Providing flood control to adjacent properties may facilitate development, converting open fields to urban uses such as residential, commercial, and local government.	8. Development of adjacent parcels is currently proceeding.

Long-Term (continued)

9. The development of adjacent properties can be expected to have far-reaching socio-economic impacts on the local economy. Such long-term impacts can only be predicted in a general way, without knowing the types of businesses which may eventually occupy the area. We expect local increases in employment and the purchase of goods and services. The tax base will increase, however demand for urban services will also increase. Development of adjacent properties will remove about 500 acres of "fairly good" agricultural soil, (as rated by the U. S. Soil Conservation Service) from production.	9. Although development is presently occurring, it has not proceeded sufficiently to determine which types of businesses will occupy the properties. It appears inevitable that increases in employment, etc. will follow as new establishments begin operation. It is unlikely that once the area is developed it will revert to the predevelopment condition. New businesses, residential housing and governmental building will require the normal urban services.
10. No historical or archeological resources are anticipated to be impacted by the proposed flood control project.	10. No historical or archeological resources were encountered during project construction.

C. Adequacy of EIR Impact Predictions

Approximately twenty impacts were identified in the EIR. Some impacts, particularly those relating to revegetation and development of the 1% floodplain, could not be evaluated at this time; sufficient time has not passed to allow these events to occur.

Eight of the twenty impacts were correctly identified, five were unmonitored and two impacts were incorrectly predicted.

The EIR projected increased traffic conjestion on adjacent streets, however, this did not really occur because of the unforeseen opening of the Abel Street bridge, a new overcrossing, which significantly reduced the adverse construction traffic impacts.

Five predicted impacts cannot be adequately assessed due to no monitoring. These include: exceeding the 24-hour particulate emission standards; high noise levels; displaced or killed wildlife; local air quality deterioration and increased noise levels resulting from new residential development which has already occurred in the 1% floodplain.

The discrepancy between the estimated cost of the District's share and the actual cost is approximately 12%; this figure is within common normal limits for projected and actual costs in civil engineering contracts.

Some impacts have yet to be tested,including the 1% flood protection design, and earthquake-induced levee failures. Other impacts which cannot yet be assessed are those related to the ultimate development of the 1% floodplain, as conceived by the City of Milpitas.

Sufficient vegetation regrowth has not occurred to evaluate the impacts of District maintenance on the biological sector of this project.

The landscaping project was not done, although predicted in the EIR.

D. Summary Discussion and Success of the Migitation Measures

Some of the mitigation measures have either not been implemented or were not monitored for their effectiveness. For example, the landscaping has not been installed and no monitoring was done of gaseous or particulate air pollutants or construction noise.

Although no monitoring of dust emissions was done, the construction site was spinkled where appropriate to control blowing dust. No exhaust gas emissions monitoring was done either; however, we assume that,in the light of increasing equipment operating costs, the contractor kept his equipment reasonably well tuned. No noise monitoring was done, but construction was generally done in open areas not likely to cause annoyance.

The proposed landscaping for this project has not been done and most likely will never be completed, in spite of prepared designs. The impact of Proposition 13 has eliminated landscaping funding for this project.

No energy conservation plans were submitted by contractors in the bids for the project. The engineering staff generally feels that sufficient economic incentives exist for contractors to minimize energy consumption to maximize profits.

E. Conclusions and Recommendations

Most of the significant impacts were accurately predicted. Extenuating circumstances, such as the new Abel Street bridge overcrossing and not landscaping, precluded greater prediction accuracy.

Long-term predictions accuracy cannot yet be evaluated. These include 1% flood protection, the effects of not landscaping, the impacts of urbanization on various parameters, and the biological effects of District maintenance procedures.

Lack of monitoring of noise, air quality, and biological impacts raises some basic questions. Does the District include these sections in the EIR merely to address the written letter of the law? Or are these impacts somehow informally considered insignificant? Similar procedures have been followed on all District projects since the consideration of these issues became legal mandate. This apparent conflict has never been formally discussed nor have resolutions been proposed. If these impacts are insignificant they should be outlined as such to eliminate this discrepancy.

Although the EIR accurately predicted increased erosion and possible slope failures, a site inspection revealed that the new levees were constructed of soils with very low structural strength. The result has been excessive erosion and unnecessary slope failures.

The levee side slopes were constructed so steeply that many plant materials, even weeds, have difficulty getting established. The slope steepness also accelerates erosion.

The effects of not landscaping the completed flood control project may be summarized as follows:

1. Increased adverse aesthetic impacts.
2. Lost long-term biological habitat enhancement.
3. Limited future recreational uses.
4. Reduced District credibility with Milpitas citizenry because of breached promise to landscape.
5. Lost economic and employment opportunities to a landscape contractor.
6. Slightly higher long term erosion rates due to reduced vegetation.
7. No long-term reduction in maintenance costs (as plant materials would have matured).

It appears that the EIR should be reviewed by all those people involved in the design, construction and maintenance details of all projects. This would ensure a full understanding of design intentions for the migitation measures. It would also ensure that the proposed mitigation measures are reasonable from a construction standpoint.